

ABSTRACT OF THE DISCLOSURE

A method and apparatus for applying a protective ring about the perimeter of an exposed die face. Specifically, a semiconductor chip is coupled to the upper surface of a substrate. The edges of the semiconductor chip are protected by a molding compound which is disposed about the perimeter of the chip and on all or a portion of the substrate. The molding system which is used to apply the protective ring comprises three molding plates and does not require a vacuum-based system to hold the package stationary during the encapsulation process. By not applying a molding compound on the top surface of the semiconductor chip, no height is added to the package.